

What is claimed is:

1. A cover layer for engine compartment lining comprising:  
at least one binder-bonded nonwoven layer, the nonwoven layer being bonded using a binder having a thermoplastic behavior in the temperature range of 20° to 200°C and a thermosetting behavior above 200°C.
2. The cover layer as recited in claim 1, wherein the binder is capable of condensing upon crosslinking and being pre-crosslinked at a temperature of up to 200°C and cured at a temperature above 200°C.
3. The cover layer as recited in claim 1, wherein the binder is selected from the group of the acrylic acid copolymers or ter-polymers with styrene, butadiene, and/or acrylonitrile.
4. The cover layer as recited in claim 3, wherein the binder is selected from the group of the acrylic acid copolymers with styrene.
5. The cover layer as recited in claim 1, wherein the binder contains flame retardant agents, water repellent agents, and/or oil repellent agents.
6. The cover layer as recited in claim 1, wherein the nonwoven layer includes halogen-free and heavy metal-free phosphorous compounds containing nitrogen as a flame retardant.
7. The cover layer as recited in claim 6, wherein the flame retardant is a nitrogen-containing phosphonic acid derivative having an elemental content of  $\geq 10$  wt.% of nitrogen and  $\geq 5$  wt.% of phosphorous.

8. The cover layer as recited in claim 1, wherein the nonwoven layer includes rayon fibers, polyester fibers, cellulose fibers, polyamide fibers, polyolefine fibers, and/or pre-oxidized polyacrylonitrile fibers.

9. The cover layer as recited in claim 1, wherein the cover layer has a mass per unit area of  $20 \text{ g/m}^2$  to  $200 \text{ g/m}^2$ , and the nonwoven layer includes fibers in a weight ratio between the fibers employed per square meter and the binder employed per square meter being in the range of 0.5:1 to 2:0.5.

10. The cover layer as recited in claim 1, further comprising a coating on one side of the nonwoven layer, the coating including a hot-setting adhesive made of a polyolefin resin, polyester resin, phenolic resin, or melamine resin.

11. A method for manufacturing a cover layer as recited in claim 1 the method comprising the steps of:

combining staple fibers having a length of 20 mm to 200 mm and a fiber count of 0.8 to 40 decitex to form a nonwoven having a mass per unit area of  $10 \text{ g/m}^2$  to  $200 \text{ g/m}^2$ ; and

impregnating the non-woven using a binder which has a thermoplastic behavior in the temperature range of  $20^\circ$  to  $200^\circ\text{C}$  and a thermosetting behavior above  $200^\circ\text{C}$ .

12. The method as recited in claim 11, wherein the binder is applied in the form of foam.

13. The method as recited in claim 11, wherein the formation of the nonwoven takes place in such a way that a ratio of the flexibility across the machine direction to the flexibility in the machine direction is in the range of 4:1 to 1:2.

14. The method as recited in claim 11, further comprising applying a hot-setting adhesive layer is applied to the nonwoven layer in such a quantity that represents at least 10% of a base material composed of the nonwoven and the binder.

15. The method as recited in claim 14, wherein the base material includes flame retardant agents, water repellent agents, and/or oil repellent agents.